

94. The protein of claim 93, wherein the protein comprises a sequence at least 80 % identical to the sequence of SEQ ID NO:3 fused to an amino acid sequence at least 80% identical to the sequence inclusive of Gln 991 to Val 1256 of SEQ ID NO:2.

95. The protein of claim 93, wherein the protein comprises a sequence at least 80% identical to the sequence of SEQ ID NO:8 fused to a sequence at least 80% identical to the sequence of SEQ ID NO:4.

96. The protein of claim 93, wherein the protein comprises a sequence at least 80% identical to the sequence of SEQ ID NO:8 fused to the amino acid sequence inclusive of Gln 991 to Val 1256 of SEQ ID NO:2.

97. The protein of claim 93, wherein the HER-2/neu extracellular domain is fused to the HER-2/neu phosphorylation domain via a chemical linker.

98. The protein of claim 97, wherein the chemical linker is an amino acid linker

99. A pharmaceutical composition comprising the protein molecule of claim 93, and a pharmaceutically acceptable carrier or diluent.

100. The pharmaceutical composition of claim 99, further comprising an immunostimulatory substance.

101. The pharmaceutical composition of claim 99, wherein the protein is presented in an oil-in-water emulsion.

100 99 98 97 96 95 94 93 92 91

all
cont

102. The pharmaceutical composition of claim 99, wherein the immunostimulatory substance is SBAS2, 3D-MPL, QS21, or a combination of 3D-MPL and QS21.

Claim 102
103. An protein comprising a HER-2/neu extracellular domain fused to a fragment of the HER-2/neu phosphorylation domain, wherein the protein has a sequence at least 80% identical to the sequence of SEQ ID NO:7, or wherein the protein comprises a sequence at least 80% identical to the sequence of SEQ ID NO:3 fused to a sequence at least 80% identical to the sequence of SEQ ID NO:5, and wherein the protein is capable of producing an immune response in a warm-blooded animal.

104. The protein of claim 103, wherein the protein comprises a sequence at least 80% identical to the sequence of SEQ ID NO:3 fused to a sequence at least 80% identical to the amino acid sequence inclusive of Gln 991 to Arg 1049 of SEQ ID NO:2.

105. The protein of claim 103, wherein the protein comprises a sequence at least 80% identical to the sequence of SEQ ID NO:8 fused to a sequence at least 80% identical to the sequence of SEQ ID NO:5.

106. The protein of claim 103, wherein the protein comprises a sequence at least 80% identical to the sequence of SEQ ID NO:8 fused to a sequence at least 80% identical to the amino acid sequence inclusive of Gln 991 to Arg 1049 of SEQ ID NO:2.

107. The protein of claim 103, wherein the HER-2/neu extracellular domain is fused to the HER-2/neu phosphorylation domain via a chemical linker.

108. The protein of claim 103, wherein the chemical linker is an amino acid linker